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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION N |
|---|-------------|----------------------|---------------------|----------------|
| 10/629,899  | 07/30/2003  | Fujio Akahane        | Q76765              | 6246           |
| 23373   | 7590        | 11/01/2004           | EXAMINER            |                |
| SUGHRUE MION, PLLC<br>2100 PENNSYLVANIA AVENUE, N.W.<br>SUITE 800<br>WASHINGTON, DC 20037 |             |                      | CRANE, DANIEL C     |                |
|   |             |                      | ART UNIT            | PAPER NUMBER   |
|   |             |                      | 3725                |                |

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/629,899 | <b>Applicant(s)</b><br>AKAHANE ET AL. |  |
|                              | <b>Examiner</b><br>Daniel C Crane    | <b>Art Unit</b><br>3725               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-19, 25, 26 and 29 is/are rejected.
- 7) ☒ Claim(s) 7, 20-24, 27 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/8/2004</u> . | 6) <input type="checkbox"/> Other: ____  |

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### **BASIS FOR REJECTIONS**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### **REJECTION OF CLAIMS ON FORMAL MATTERS**

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6 and 8-16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure is not clear for the embodiment where the same lower die is used to support the flat portion while the punching is performed. In this regard, the claims call for providing "an upper die and a lower die", however, the drawings do

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not show that this same "lower die" is used to support the flat portion during the punching operation. The claims have been examined as best understood.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Reference is made to claim 1 to complete the claimed method. However, it is clear to what extent of the method of claim 1 is relied upon. Accordingly, the method within a method is unclear under the statute.

#### **REJECTION OF CLAIMS OVER PRIOR ART**

Claims 1, 3, 5, 6, 12 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo (4,245,491). See Figures 3 and 4 where the "upper die" 4 cooperates with a "lower die" 1 to produce a protrusion (Figure 3(II)) and a flat portion (Figure 3(III)). The "upper die" 4 subsequently produces the hole. The "draft" is the connection between the die 3 and the ring 2.

Claims 18, 19, 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Burke (3,141,358). See Figures 1 and 4 where the upper die 11 is used to form the protrusion 14 with an unpenetrated hole and the lower die 40 is used to form a flat portion on the protrusion. See also the paragraph bridging columns 2 and 3. The "draft" is formed between the hole 13 and the upper die 11, thus, the upper die is provided with a "draft".

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burke (3,141,358). While Burke only shows that one hole is formed, it is the examiner's position that the duplicating of parts, i.e., providing a multiplicity of upper and lower dies, to form holes simultaneously would have been obvious to the skilled artisan at the time of the invention so as to increase the production of the manufacturing operation.

Claim 8, 13, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo (4,245,491). While Kondo only shows that one hole is formed, it is the examiner's position that the duplicating of parts, i.e., providing a multiplicity of upper and lower dies, to form holes simultaneously would have been obvious to the skilled artisan at the time of the invention so as to increase the production of the manufacturing operation. Burr removal, per se, is common in the manufacturing processes and would have been an obvious provision in Kondo where burrs might be present. The shape of the hole would be dependent upon the particular use and the skilled artisan having the benefit of Kondo's process would have been disposed to select any shape hole, if desired.

#### **INDICATION OF ALLOWABLE SUBJECT MATTER**

Claim 17 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

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Claims 7, 20-24 and 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **PRIOR ART CITED BY EXAMINER**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### **RESPONSE BY APPLICANT(S)**

Applicant(s) response to be fully responsive and to provide for a clear record must specifically point out how the language of the claims patentably distinguishes them from the references, both those references applied in the objections and rejections and those references cited in view of the state of the art in accordance with 37 CFR 1.111 (a), (b) and (c).

#### **INQUIRIES**

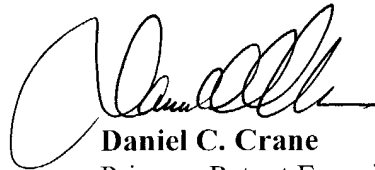
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner D. Crane whose telephone number is (703) 308-1870. The examiner's office hours are 6:30AM-5:00PM, Tuesday through Friday. The examiner's supervisor, Mr. Allen Ostrager, can be reached at (703) 308-3136.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1148.

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Documents related to the instant application may be submitted directly to Group 3700 by facsimile transmission at all times. Applicant(s) is(are) reminded to clearly mark any transmission as "DRAFT" if it is not to be considered as an official response. The Group 3725 Facsimile Center number is **(703) 872-9306**.

DCCrane  
October 28, 2004

A handwritten signature in black ink, appearing to read 'DCCrane', is positioned above the printed name and title.

**Daniel C. Crane**  
Primary Patent Examiner  
Group Art Unit 3725